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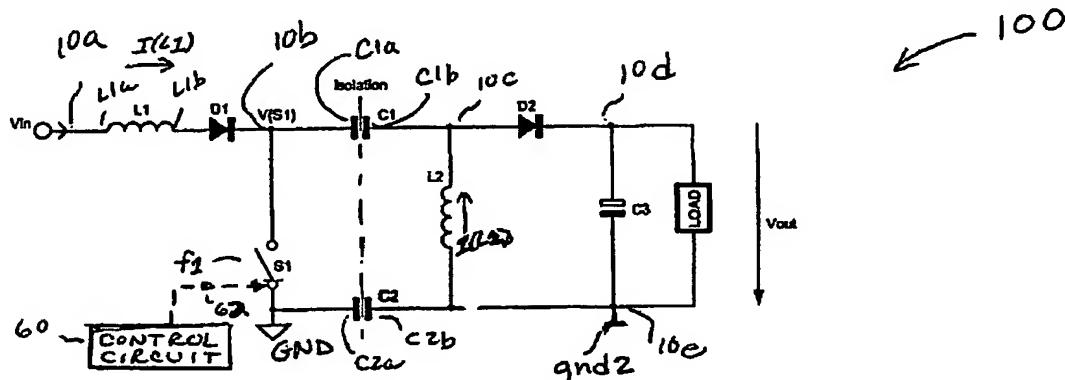
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(54) Title: POWER SUPPLY WITH CAPACITIVE MAINS ISOLATION



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(57) Abstract: A power supply with capacitive mains isolation, comprises a source of an input supply voltage developed between a first terminal and a second terminal. A first supply inductance is coupled to the first terminal, and a second supply inductance is coupled to a load circuit. A switch responsive to a periodic control signal applies the input supply voltage to the first supply inductance to generate a current in the first supply inductance at a first polarity, during a first portion of a period of the control signal when the switch is at a first switch state. A pair of capacitors operate to couple the first supply inductance to the second supply inductance during a second portion of the period of the control signal when the switch is at a second switch state. The pair of capacitors isolate the first and second terminals, respectively, from the second supply inductance at a range of frequencies that is lower than a frequency of the control signal. A first rectifier is coupled to the first supply inductance for preventing the first supply inductance current from changing polarity, during the second portion of the period.

INTERNATIONAL SEARCH REPORT

International Application No. 03/05836

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H02M3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H02M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 696 841 A (HEWLETT PACKARD CO) 14 February 1996 (1996-02-14) the whole document	1-15
Y	BRKOVIC, M., CUK, S, CALIFORNIA INST. OF TECHNOL., PASADENA, CA, USA: "Automatic current shaper with fast output regulation and soft-switching" TELECOMMUNICATIONS ENERGY CONFERENCE , 1993. INTELEC'93. 15TH INTERNATIONAL, vol. 1, 27 September 1993 (1993-09-27), pages 379-386, XP002286946 PARIS FRANCE page 380; figures 2-5	1-15
A	US 5 642 267 A (BRKOVIC MILIVOJE S ET AL) 24 June 1997 (1997-06-24) columns 1,2; figure 2	1,15

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *&* document member of the same patent family

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MADIGAN, M.T., ERICKSON, R.W., ISMAIL, E.H., UNITRODE CORP., CARY, NC, USA: "integrated high-quality rectifier-regulator" INDUSTRIAL ELECTRONICS, IEEE TRANSACTIONS, vol. 46, August 1999 (1999-08), pages 749-758, XP002286947 page 750; figure 3c -----	1,15

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EP 0696841	A 14-02-1996	US 5583421 A EP 0696841 A1 JP 8066017 A	10-12-1996 14-02-1996 08-03-1996
US 5642267	A 24-06-1997	NONE	